

bonding the electronic component to the circuit board while alleviating a stress caused when hardening the insulating resin by reducing the pressure force to a pressure P2 lower than the pressure P1 after a lapse of a specified time, so that the electrode of the electronic component is electrically connected with the electrode of the circuit board.

36. An electronic component mounting method as claimed in any one of claims 25 through 27, wherein the inorganic filler mixed with the insulating resin is provided by a plurality of types of inorganic fillers (6f-1, 6f-2), which have different mean particle diameters.

37. An electronic component mounting method as claimed in any one of claims 25 through 27 and 36, wherein the insulating resin layer (6, 306b) has a portion brought in contact with either the electronic component or the board, the portion having a smaller amount of inorganic filler than that of the other portion.

38. An electronic component mounting method as claimed in claim 37, wherein the insulating resin layer (6, 306b) has a portion brought in contact with both the electronic component and the board, the portion having a smaller amount of inorganic filler than that of the other portion.

39. An electronic component mounting method as

claimed in claim 37 or 38, wherein the portion brought in contact with the electronic component is provided by an insulating resin that improves adhesion to a film material used on a surface of the electronic component, and the
5 portion brought in contact with the board is provided by an insulating resin that improves adhesion to a material used on a surface of the board.

40. An electronic component mounting method as claimed in any one of claims 25 through 27 and 36, wherein
10 the insulating resin layer (6, 306b) has a portion brought in contact with either the electronic component or the board, the portion being mixed with no inorganic filler.

41. An electronic component unit, wherein an electrode (2) of an electronic component (1) is
15 electrically connected to an electrode (5) of a circuit board (4) with a bump (3, 103) formed on the electrode (2) of the electronic component (1) and bonded to the electrode (5) of the circuit board (4) in a state in which the bump is crushed with interposition of an insulating resin layer
20 (6, 306b), in which an insulating resin (306m) is mixed with an inorganic filler (6f) and hardened, and

the insulating resin layer (6, 306b) has a portion brought in contact with either the electronic component or the board, the portion having a smaller amount
25 of inorganic filler than that of the other portion.

42. An electronic component unit, wherein an electrode (2) of an electronic component (1) is electrically connected to an electrode (5) of a circuit board (4) with a bump (3, 103) formed on the electrode (2) of the electronic component (1) and bonded to the electrode (5) of the circuit board (4) in a state in which the bump is crushed with interposition of an insulating resin layer (6, 306b), in which an insulating resin (306m) is mixed with an inorganic filler (6f) and hardened, and

the insulating resin layer (6, 306b) comprises: a first resin layer (6x), which is positioned in a portion brought in contact with either the electronic component or the board and in which an insulating resin identical to the insulating resin is mixed with the inorganic filler; and a second resin layer (6y), which is in contact with the first resin layer and is made of an insulating resin whose amount of the inorganic filler is less than that of the first resin layer.

43. An electronic component mounting method as claimed in claim 5 or 28, wherein heating is effected from the upper surface side of the electronic component or from the board side or from both the electronic component side and the board side when metallically bonding the gold bump to the electrode of the board with supersonic waves applied.

44. An electronic component unit, wherein the